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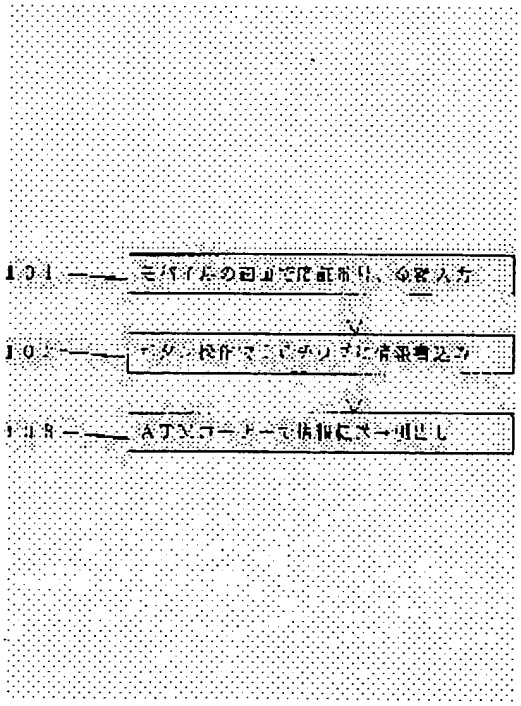
(54) MONETARY PROCESSING SYSTEM INCORPORATED IN PORTABLE TELEPHONE

(57)Abstract:

PROBLEM TO BE SOLVED: To speedily and easily perform cash withdrawal and various money reception/payment processings from an ATM through the use of a portable telephone set by incorporating various financial contents in the portable telephone set.

SOLUTION: In a financial processing system incorporated in the portable telephone set, the portable telephone set incorporates an IC chip and a data transfer means transferring data from the IC chip to the ATM without contact is installed. A password and financial processing information in the ATM are inputted to the portable telephone set and are written into the IC chip. They are transferred to the ATM from the IC chip through the data transfer means. The ATM performs the financial processing based on transferred input information.



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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to the application system built into a cellular phone, and the application system which possesses a financial processing facility and the function relevant to financial processing especially.
[0002]
[Description of the Prior Art] The function of a cellular phone is developing splendidly and various functions, such as perusal of the web page of the Internet and transmission and reception of an electronic mail, are offered these days. the inside of it -- close payment **** of an individual bank account -- the so-called telephone banking function is also included. In telephone banking, after a user inputs a personal identification number etc. by the push button of telephone, processing for which it asks by performing alter operation of the class (transferring change etc.) metallurgy frame of close payment processing is performed. In alter operation, a proper item is chosen by the push button according to the directions displayed on automatic voice guidance or the display screen of a cellular phone.
[0003]
[Problem(s) to be Solved by the Invention] thus, financial processing machine ** in a cellular phone -- although the application which offers the so-called financial contents is offered variously, the application which still performs synthetic individual banking processing of the housekeeping book function by arrangement and preservation of the close payment data of the account concerned etc. in the settlement-of-accounts list of the goods price by the payment from the cash drawer and account of cash from an account is not shown.
[0004] On the other hand, although chiefly carried out using ATM in many cases, the cash drawer of the cash from an account must input required information, such as a personal identification number and the cash-drawer amount of money, into the input unit of ATM, after inserting an ATM card in ATM. Generally the ATM card of a contact mold is used, and since card insertion and subsequent alter operation take predetermined time amount, the confusion is made further puffed up in the present condition at the time of rush hours of ATM.
[0005] By incorporating the financial contents possessing the synthetic function which includes individual banking processing as application of a cellular phone, using a cellular phone, goods delivery is carried out and this invention aims at activation of the quick cash cash drawer from ATM, and various close payment processings, settlement of goods price, and managing close payment data easily in view of the above present condition.
[0006]
[Means for Solving the Problem] This invention offers the following configurations in order to attain the above-mentioned purpose.
[0007] (1) While said cellular phone builds in IC chip in the financial processing system built into the cellular phone possessing an input means and a display means in order to perform financial processing in ATM The data transfer means for carrying out data transfer in non-contact is formed in said ATM

from this IC chip. After inputting into said cellular phone the information concerning the financial processing in the personal identification number which starts a bank account using said input means, and said ATM, Transmitting said IC chip of said cellular phone to said input for the inputted this information through writing and said data transfer means to said ATM at said IC chip, said ATM performs said financial processing which relates to said bank account based on said transmitted input.
[0008] (2) In the configuration of the above (1), said financial processing is chosen from the groups containing inquiry for the balances, a cash drawer, close payment detail enquiry, transfer, and change.
[0009] (3) Access by the telephone line to the database which stored the information which starts the close payment situation of said bank account with said cellular phone in the financial processing system built into the cellular phone possessing an input means and a display means, acquire data in order to check the close payment situation of a bank account, and display said acquired data on said display means.
[0010] (4) In the configuration of the above (3), the information concerning the close payment situation of said bank account is the information related for carrying out draw down from this bank account, and contains a draw-down day, the contents of draw down, and the draw-down amount of money.
[0011] (5) Input the information concerning the receipts-and-payments situation of a household economy with said input means in the financial processing system built into the cellular phone possessing an input means and a display means in order to input the receipts-and-payments situation of a household economy, and store said inputted data by accessing by the telephone line to the database which stored the information concerning the receipts-and-payments situation of said household economy.
[0012] (6) Access to a pocket base station by the telephone line in the system built into the cellular phone possessing a display means, when a pocket base station carries out GPS, acquire the information about said present location and said nearby ATM installation, return said acquired information to said cellular phone, and display said returned information with said display means, in order to acquire the information about a present location and a nearby ATM installation.
[0013] (7) A map is contained in the display by said display means in the configuration of the above (6).

[0014] (8) It is the cellular phone which had the system of a publication incorporated by either the above (1) thru/or the above (7).
[0015]
[Embodiment of the Invention] Hereafter, the gestalt of operation of this invention is explained with reference to a drawing. The cellular phone (all over drawing, it calls "mobile") in this invention possesses a means, in order to build in same IC chip and to output and input data to IC chip in non-contact, if built in an IC card. IC chip is known for the ability of security nature to memorize a lot of high information compared with a magnetic-recording medium. Furthermore, this cellular phone possesses the display for displaying data on the push button or the similar input means list for inputting data.
[0016] On the other hand, although an entry-of-data means and display means, such as a touch panel or a push button, are provided, as for Consumer Transaction Facility, i.e., ATM, especially in this invention, the means for reading writing and data also usually possesses data to IC chip of a cellular phone in non-contact.
[0017] The owner of this cellular phone shall hold an account in the bank in which ATM is installed or its bank, and the bank which ties up. In relation to the account concerned, the personal identification number which only an account carrier recognizes is set up. Usually, the account carrier owns the ATM card and can perform the cash drawer of cash by applying an ATM card to ATM.
[0018] Drawing 1 is the rough flow chart showing the actuation flow in the case of using the cash cash-drawer function which is one of the financial processing systems in the cellular phone by this invention. In step 101, an account carrier inputs a personal identification number using the input means of a cellular phone. Since a personal identification number is an advanced secret matter, in the case of an input, a personal identification number is not specified on a screen, but only input number of letters is

instead displayed with notations, such as "*." An account carrier inputs the cash-drawer amount of money after the input of a personal identification number.
[0019] The information inputted into IC chip built in the cellular phone by pushing the predetermined carbon button prepared on the cellular phone in step 102 or other proper actuation is written in after an input.
[0020] It is desirable to carry out beforehand, before steps 101 and 102 go to an ATM installation. One of the advantages of this invention is the location of arbitration other than an ATM installation, and it is being able to perform required actuation for a cash cash drawer beforehand.
[0021] In step 103, an account carrier transmits the information in IC chip by going to ATM and making the read means of ATM read the information in IC chip of a cellular phone. This is performed in non-contact. enquiry to a host computer performs on-line from ATM -- having -- a personal identification number -- him -- if it can check, the cash of the amount of money specified by input from ATM will be contributed.
[0022] Drawing 2 is drawing having shown the example of a display on the display of the cellular phone in cash cash-drawer actuation with a cellular phone. First, in an initial screen, the list of the financial contents included in a cellular phone is shown. For example, they are inquiry for the balances, a cash drawer, close payment detail enquiry, transfer, change, and a money calender. About a money calender, it mentions later. Here, suppose that "2. a cash drawer" is chosen. Then, on degree screen, it pulls out with a personal identification number and is urged to the input of the amount of money.
[0023] Drawing 3 is drawing having shown the example of a display in the case of choosing "4. transfer" in the initial screen of drawing 2 . degree screen -- setting -- him -- the personal identification number, the transfer amount of money, and the transfer place for a check are inputted. Furthermore, the message to a transfer partner can be attached in transfer actuation. The mail address of a description and a partner is inputted to attach a message. If these inputs are finished, input will be written in IC chip. Then, transfer is performed shortly after making ATM read input in ATM. When there is a message, a message is sent to a partner. By this transfer function, shopping becomes possible. For example, while transferring money to the account of the store which carries out goods sale, by telling the contents of goods for which it asks to a store by the message, settlement of goods price will be completed and goods will be sent later.
[0024] Drawing 4 is drawing having shown the example of a display in the case of choosing "6. a money calender" in the initial screen of drawing 2 . In a "money calender", information about the check of the close payment situation of a bank account and the receipts and payments of a household economy is outputted and inputted. In drawing 4 , draw-down day information and a housekeeping book input are mentioned as an item of a money calender. When "1. draw-down day information" is chosen, by accessing to the database which the host computer of a bank manages through the telephone line, the information on the item carried out by carrying out account draw down in a few days is acquired, and it is displayed. The date, the contents, and the amount of money of ****** are shown in information. Thereby, an account carrier can be warned to secure the required account balance.
[0025] When 2. the "housekeeping book input" of a money calender is chosen, the receipts-and-payments situation in the contents, i.e., the household economy, which should be recorded in a housekeeping book can be inputted. Drawing 5 is drawing having shown the example of a display at the time of choosing a housekeeping book input. An input can be easily performed, if it carries out along with the directions displayed on the screen. First, a check screen will be displayed, if the use amount of money is inputted and it inputs by next choosing a use application from two or more items. On a check screen, they are collectively shown by the contents of an input, if infallible, by choosing "2. an additional input", it accesses to the database which the host computer of a bank manages through the telephone line, input data is sent, and input data is stored in a database. Housekeeping book information is edited by choosing "editing by PDA", when correcting an input. In addition, when carrying out the housekeeping book input of the contents of shopping, you may input automatically by POS and the cellular phone of a store communicating mutually and transmitting input data from POS of a store.
[0026] Suitably, the cellular phone concerning this invention carries JAVA language, and can perform

efficiently alter operation, and a memorandum and editing operation.
[0027] The cellular phone of this invention incorporating the financial processing system which consists of various financial contents is useful especially when using in recent years in ATM which came to be installed in the convenience store, or the 24-hour business ATM. It is because banking processing is attained easily [always], without limiting a location and time amount.
[0028] Therefore, the cellular phone concerning this invention will be used still more effectively by adding the ATM installation information offer function shown in drawing 6 . Drawing 6 shows the example of a display display of the cellular phone possessing the function to offer the installation information on ATM. On the display, while the circumference map of a its present location is displayed, Bank ATM and the ATM installation convenience store of business are displayed for 24 nearest hours. As a concrete practice, the base station of a cellular phone is utilized and GPS (broader-based positional information function) service is carried out. The cellular phone carries JAVA language and a user accesses it to the host of a base station first using a cellular phone. By carrying out GPS, the host of a base station acquires the currency information of a cellular phone, and returns the nearby cache point, i.e., the information on an ATM installation, to a cellular phone by the map and text data. A user can see the map displayed on the display and can know nearby ATM.
[0029]
[Effect of the Invention] The cellular phone itself can carry IC chip and it can make ATM read the information written in IC chip in non-contact in this invention. Therefore, instead an ATM card can use a cellular phone and ATM actuation can be carried out. For IC chip of a cellular phone, beforehand, since required input can be written in, in an ATM installation, a cash cash drawer, transfer, etc. can be processed easily and promptly. Therefore, it will contribute to confusion relaxation of ATM seriously.
[0030] There is a message attachment function among the transfer functions, and while the payment of on-line shopping is possible, the information about delivery of goods can be told by the message.
[0031] Moreover, since the informational input and informational output about the close payment of a bank account and the receipts and payments of a household economy can be performed, a cellular phone enables it to check or edit the use situation of daily money always anywhere simply. Although it is troublesome to keep a housekeeping book continuously and it does not last long in many cases, if the system of this invention is used, money can be consumed well without futility, checking draw-down days, such as a credit card.
[0032] furthermore, since the positional information of the convenience store in which ATM of business and ATM were installed through the cellular phone for 24 hours can be acquired, a user can be led to the location which can use the financial contents included in the cellular phone at preparation, and convenience is very high -- it carries out and a system is realized.

[Translation done.]

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CLAIMS

[Claim(s)]
[Claim 1] While said cellular phone builds in IC chip in the financial processing system built into the cellular phone possessing an input means and a display means in order to perform financial processing in ATM The data transfer means for carrying out data transfer in non-contact is formed in said ATM from this IC chip. After inputting into said cellular phone the information concerning the financial processing in the personal identification number which starts a bank account using said input means, and said ATM, Said input is transmitted for the inputted this information to said IC chip from said IC chip of said cellular phone through writing and said data transfer means to said ATM. Said ATM is a financial processing system built into the cellular phone characterized by performing said financial processing which relates to said bank account based on said transmitted input.
[Claim 2] The financial processing system built into the cellular phone according to claim 1 characterized by choosing said financial processing from the groups containing inquiry for the balances, a cash drawer, close payment detail enquiry, transfer, and change.
[Claim 3] The financial processing system built into the cellular phone characterized by to access by the telephone line to the database which stored the information which starts the close payment situation of said bank account with said cellular phone in the financial processing system built into the cellular phone possessing an input means and a display means, to acquire data in order to check the close payment situation of a bank account, and to display said acquired data on said display means.
[Claim 4] The financial processing system which is the information to which the information concerning the close payment situation of said bank account is related for carrying out draw down from this bank account, and is built into the cellular phone according to claim 3 characterized by including a draw-down day, the contents of draw down, and the draw-down amount of money.
[Claim 5] The financial processing system built into the cellular phone characterized by to store said inputted data by accessing by the telephone line to the database which stored the information which inputs the information concerning the receipts-and-payments situation of a household economy with said input means in the financial processing system built into the cellular phone possessing an input means and a display means in order the receipts-and-payments situation of a household economy, and starts the receipts-and-payments situation of said household economy.
[Claim 6] The system built into the cellular phone characterized by to access to a pocket base station by the telephone line in the system built into the cellular phone possessing a display means, to acquire the information about said present location and said nearby ATM installation when a pocket base station carries out GPS, to return said acquired information to said cellular phone in order the information about a present location and a nearby ATM installation, and to display said returned information with said display means.
[Claim 7] The system built into the cellular phone according to claim 6 characterized by containing a map in the display by said display means.
[Claim 8] The cellular phone characterized by incorporating a system according to claim 1 to 7.

[Translation done.]